REMARKS

Claims 1-4, 6, 8-13, 15-17 and 20 are pending in the application

REJECTION UNDER 35 U.S.C. §103(a)

The Office Action has rejected Claims 1-4, 6, 8-13, 15-17 and 20 under 35 U.S.C. §103(a), as allegedly being obvious over U.S. 6,632,884 B1 (hereinafter "Skar") in view of U.S. 6,605,675 (hereinafter "Mawson"). Applicant respectfully disagrees.

The Office Action states that as it relates to Claims 1-4 and 8, that Skar discloses "a film (column 11, line 57) that is an ethylene-olefin copolymer mixture (column 8, lines 1-7) having a density of 915 to 940 kg/m^3 wherein the mixture is bimodal and comprises a lower molecular weight component and a higher molecular weight component and wherein the lower molecular weight component has a melt flow rate of at least 100 g/10 min. and a density of 945 kg/m^3 to 960 kg/m^3 (column 11, lines 50-63) and weight average molecular weight of at least 100,000 D (column 6, lines 54-56); **the catalyst used in making the copolymer is a Ziegler-Natta catalyst** (column 12, lines 30-31)." (Emphasis has been added.) Applicants respectfully disagree.

Skar does not disclose at column 12, lines 30-31 that the catalyst used in making Skar's disclosed copolymer is a Ziegler-Natta catalyst. Rather, Skar discloses at column 12, lines 27-31:

> The present polyethylene compositions can also be used to produce heat sealable films, since compositions combine the excellent sealing properties of unimodal metallocene based materials **with the processability of Ziegler materials**. (Emphasis has been added.)

As such, the Office Action has mischaracterized the teaching of Skar. Moreover, Skar teaches at column 6, lines 23-25 "[t]o produce the polymer compositions according to the invention, ethylene is polymerized in the presence of a metallocene catalyst at elevated temperature and pressure." Skar does not disclose a process that uses a Ziegler-Natta catalyst. The only polymers disclosed by Skar that have been prepared by a Ziegler-Natta catalyst are commercially available polymers (see column 19, lines 11-22) which are referenced solely for the purpose of comparing the optical properties of polymers prepared using a Ziegler-Natta catalyst with the optical properties of polymers that were prepared according to Skar's process using a metallocene catalyst.

Skar summarizes from column 1, line 66 to column 2, line 63 that polymers formed from metallocene catalysts have good optical properties but poor mechanical properties when compared

to polymers prepared using Ziegler-Natta catalysts. As such, Skar seeks methods for preparing heat sealable films using metallocene catalysts that have good optical properties and improved mechanical properties. In this regard, Skar states at column 23, referring to Table 14:

> This table shows that the film made of the inventive material has almost similar optical properties (slightly higher haze and lower gloss) than the film made of unimodal Ziegler-Natta material (RL3) but significantly improved mechanical properties (higher dart drop and tear strength).

By contrast, the present claims recite polymers that are designed to shrink around an object but not to form a seal on it. A shrink film protects an object but is easy to remove later. A shrink film manufacturer does not want to form a seal with the object to be enclosed (i.e., form a vapor barrier as required by the Skar films), but only cover an object to protect it from damage. Indeed, a shrink film as disclosed by Applicants will have optical properties that worsen in use, thus loosing any of Skar's desired optical properties once applied. Optical clarity is therefore not a property that is required for a suitable shrink film. By contrast, films such as those disclosed by Skar are used to package food, *inter alia*, prepackaged ham or cheese wherein a sealing film when applied by heat **must not shrink**. Hence, Skar uses a metallocene catalyst instead of a Ziegler-Natta catalyst to prepare polymers which have end use properties (i.e., heat sealable) that are different from the properties of Applicants' shrinkable polymers.

Because Skar does not disclose the use of Ziegler-Natta catalysts for preparing shrinkable polymers, the Office Action turns to Mawson for this disclosure. Mawson summarizes at column 2, lines 8-19 as follows:

> The invention generally provides polymerization catalyst compositions and methods for introducing the catalyst compositions into a polymerization reactor. More particularly, the method combines a catalyst component containing slurry and a catalyst component containing solution to form the completed catalyst composition for introduction into the polymerization reactor. The invention is also directed to methods of preparing the catalyst component slurry, the catalyst component solution, and the catalyst compositions, to methods of controlling the properties of polymer products utilizing the catalyst compositions, and to polymers produced therefrom.

Hence, Mawson discloses catalysts and catalyst activators (column 2, line 64 to column 25, line 51) while providing a paucity of disclosure relating to the polymers produced therefrom.

The Office Action states that "[the artisan] would therefore have recognized the advantage of providing for the comonomer amount, molecular weight distribution and shrinkability of Mawson et al in Skar et al, which comprises a film, depending on the desired use of the end product." There is no disclosure in Mawson related to shrinkabiltiy. Indeed, the word "shrink" is used once when Mawson discloses at column 45, lines 52- 61 that the disclosed process can obtain polymers useful for:

> [S]hrink film, cling film, stretch film, sealing films, oriented films, snack packaging, heavy duty bags, grocery sacks, baked and frozen food packaging, medical packaging, industrial liners, membranes, etc. in food-contact and non-food contact applications.

As such, the Office Action's statement that "[the artisan] would therefore have recognized the advantage of providing for the comonomer amount, molecular weight distribution and shrinkability" is incorrect since a discussion of shrinkability and the requirements for preparing a shrinkable polymer is absent from Mawson.

In summary, Skar does not disclose shrinkable polymers, but instead, polymers **not intended to shrink**. Skar does not disclose processes that utilize a Ziegler-Natta catalyst. Mawson does not teach processes that form shrinkable polymers. Instead, Mawson discloses how to combine a catalyst component containing slurry and a catalyst component containing solution to form a completed catalyst composition for introduction into a polymerization reactor. As such, Mawson does not disclose selecting a Ziegler-Natta catalyst for use in making shrinkable polymers.

Combining the disclosures of Skar and Mawson would not result in any teaching that relates to shrinkable polymers, their properties, nor the use of a Ziegler-Natta catalyst to form them.

As it relates to Claim 6, the Office Action states "the comonomer taught by Mawson is butene (column 41, lines 3-11)." Mawson discloses at column 41, 3-11:

> In one embodiment, the invention is directed to a polymerization process, particularly a gas phase or slurry phase process, for polymerizing propylene alone r with one or more other monomers including ethylene, and/or other olefins having from 4 to 12 carbon atoms. Polypropylene polymers may be produced using the particularly bridged bulky ligand metallocene catalysts as described in U.S. Pat. Nos. 5,296,434 and 5,278,264, both of which are herein incorporated by reference.

This citation discloses any other "olefin having from 4 to 12 carbon atoms," hence, not specifically butene as asserted by the Office Action, thereby requiring the artisan to choose among olefins having 9 other carbon numbers. However, this citation specifically discloses that the polypropylene polymers **may be produced using particularly bridged bulky ligand metallocene catalysts**; not Ziegler-Natta catalysts. Instead, Applicants assert that the artisan would not substitute a Ziegler-Natta catalyst for the metallocene catalyst taught by Skar based upon the context of this citation.

The Office Action has also rejected dependent Claims 9-13, 15-17, and 20 under 35 U.S.C. §103(a), as allegedly being obvious on a number of grounds. Applicant respectfully disagrees. Dependent claims are non-obvious under Section 103 if the independent claims from which they depend are non-obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Thus, because independent Claim 1 is non-obvious as argued above, dependent Claims 9-13, 15-17, and 20 are non-obvious and in condition for allowance as well. In view of the remarks provided herein above, Applicant respectfully requests reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. §103(a).

CONCLUSION

Applicant believes Claims 1-4, 6, 8-13, 15-17 and 20 are in condition for allowance. If any further issues need to be discussed, the Office is invited to contact Applicant's undersigned Agent. No fees are believed to be due; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

BALLARD SPAHR ANDREWS & INGERSOLL, LLP

/ Richard S. Echler /
Richard S. Echler
Registration No. 41,006

Customer Number 23859
(678) 420-9300 Phone
(678) 420-9301 Facsimile

CERTIFICATE OF ELECTRONIC TRANSMISSION UNDER 37 C.F.R. § 1.8			
I hereby certify that this correspondence, including any items indicated as attached or included, is being transmitted via electronic transmission via EFS-Web on the date indicated below.			
Name of Person Signing (Print/Type)	Richard S. Echler		
Signature	/ Richard S. Echler/	Date	November 20, 2008